

REMARKS

Claims 32-51 were pending in the application prior to this amendment. By this amendment, Applicants have rewritten the claims in order to more fully claim what Applicants regard as their invention. Accordingly, Applicants present claims 32-51 to the Examiner for consideration. In this corrected amendment, all the newly added claims *vis-a-vis* the original patent have been underlined and are without brackets, as requested by the Office communication mailed September 27, 2000 (Paper No. 11).

The Office communication also requests Applicants to provide support for the most recently added claims 52-55 (now claims 48-51). Support for new claims 48 and 49 is found at the bottom two lines of col. 20 and continuing through to the middle of column 21 of the Substitute Specification. Applicants note that a composition of matter that is shaped into a discrete article of manufacture is also a composition of matter for purposes of satisfying 35 U.S.C. § 101. Support for new claims 50 and 51 may be found in claims 32 and 35-37, and also at col. 56-58 of the Substitute Specification.

The Office Action dated February 4, 2000 (Paper No. 4) objected to the submission establishing ownership of U.S. Patent No. 5,662,731 and also the reissue oath or declaration on the grounds that they were not signed by the proper persons. Accordingly, Applicants have previously submitted a newly executed "Request For Reissue Application" duly signed by Simon K. Hodson, President of E. Khashoggi Industries, LLC ("EKI"), establishing EKI as the Assignee and owner of record of U.S. Patent No. 5,662,731. In addition, Applicants have previously submitted a new "Declaration in Support of Reissue Application" duly signed by the inventors, Per Just Andersen, Ph.D. and Simon K. Hodson, and also Simon K. Hodson on behalf of Assignee EKI.

The Office Action further objected to the present application on the grounds that it "does not contain the changes corrected in the Certificate of Correction". Accordingly, Applicants have

previously submitted a Substitute Specification marked in red to show the corrections made to U.S. Patent No.5,662,731 by the Certificate of Correction, as well as a courtesy copy of the Certificate of Correction. Applicants believe the marked up Substitute Specification satisfies the filing requirements of a reissue application set forth in 37 C.F.R. § 1.173, since there were no objections in the latest Office communication regarding the Substitute Specification.

The Office Action stated that the reissue oath or declaration “is defective because the error which is relied upon to support the reissue application is not an error upon which a reissue can be based.” The Office Action then refers to 37 C.F.R. § 1.175(a) and MPEP § 1414. In response, Applicants note that 37 C.F.R. § 1.175(a) requires the oath or declaration to state that “applicant believes the original patent to be wholly or partly inoperative . . . by reason of the patentee claiming more or less than the patentee had the right to claim in the patent, stating at least one error being relied upon as the basis for reissue.”

The new reissue oath or declaration submitted on April 21, 2000 states the following in ¶ 5: “Applicants believe that U.S. Patent No.5,662,731 is wholly or partly inoperative by reason of Applicants having claimed less than what the Applicants had the right to claim.” This statement clearly satisfies the first requirement set forth in 37 C.F.R. § 1.175(a). The second requirement, namely “stating at least one error being relied upon as the basis for reissue” is provided in ¶¶ 8 and 9. These paragraphs identify the error that caused Applicants to claim less than what they were entitled to, namely that they did not fully appreciate the full scope of the invention. In particular, Applicants did not fully consider claiming certain types of coatings in combination with solidified starch-based compositions, even though this invention was clearly in Applicants’ possession, as indicated by the written description set forth in the original application. Instead, Applicants focused on limiting their invention to certain types of starch-based compositions and, thus, directed Applicants’ attorneys to claim less than what Applicants were entitled to claim.

According to MPEP § 1402, “[a]n attorney’s failure to appreciate the full scope of the invention was held to be an error correctable through reissue in *In re Wilder*, 736 F.2d 1516, 222 USPQ 369 (Fed. Cir. 1984).” The new reissue oath or declaration clearly states at ¶¶ 8 and 9 that both Applicants and Applicants’ attorneys did not fully appreciate the precise inventive nature of applying certain coating materials to a solidified starch-based composition. Thus, Applicants’ attorneys “fail[ed] to appreciate the full scope of the invention” with respect to claiming certain types of coatings in combination with a starch-based composition, even though this invention was clearly set forth in the written description of the original application. Accordingly, Applicants believe that the new reissue oath or declaration fully satisfies the requirements set forth in 37 C.F.R. § 1.175(a) and MPEP §§ 1402 and 1414, particularly since no objection was included in the Office communication of September 27, 2000.

The Office Action further stated that “[t]he reissue oath/declaration filed with this application is defective . . . because . . . all of the claims, namely claims 32-51, are drawn to subject matter which was cancelled in response to a restriction requirement during the prosecution of the original patent”. In support of this assertion, the Office Action makes reference to the three-group restriction requirement issued in Paper No. 5 of U.S. application Serial No. 08/327,524 (“524 Application”), which is the application that issued into U.S. Patent No.5,662,731. The Office Action further states that, in response to that restriction requirement, Applicants elected Group I, which was directed to a starch-based composition. The Office Action further states that “Group II was drawn to the formed foamed article, which was not elected and cancelled prior to the allowance of U.S. Patent No.5,662,731”. In response, Applicants will show that the claims as now amended (1) fall within the scope of elected Group I and/or (2) fall outside the scope of nonelected Groups II and III such that they do not constitute impermissible recapture of cancelled subject matter.

First, claims 32 and 50, as now amended, appear to be similar enough to originally filed claim 1 of the '524 application so as to at least partially fall within the scope of elected Group I, at least with respect to the starch-based composition portion of the claimed subject matter exclusive of the "coating on at least a portion of the starch-based composition". At the time of the Restriction Requirement and subsequent election, elected claim 1 read as follows:

1. A starch-based composition comprising a starch-based binder in a concentration greater than about 20% by weight, and a fibrous material having an average fiber length of greater than about 2 mm and an aspect ratio of at least about 10:1, wherein the fibers are substantially homogeneously dispersed throughout the composition.

A notable aspect of elected claim 1, prior to its being subsequently amended during prosecution, was that claim 1 did not recite water as a required component of the claimed starch-based composition. Nor did claim 1 limit the starch-based composition to any particular form, such as a moldable or flowable composition, an intermediate composition in the process of being molded into a desired shape, or a composition that had already been molded into a desired shape. As such, Applicants believe it is consistent with the meaning and scope of elected claim 1 to now claim a starch-based composition in the manner set forth in amended claims 32 and 50.

The major difference between amended claims 32 and 50 of the present application and originally elected claim 1 of the '524 Application is that amended claims 32 and 50 recite a coating in combination with the starch-based composition. The effect of reciting a coating in combination with the starch-based composition in amended claims 32 and 50 does not in any way transform the subject matter recited in claims 32 and 50 into impermissible "recapture" of cancelled subject matter. On the contrary, to the extent that the Patent Office were to take the position that claiming a coating in combination with the starch-based composition materially alters the subject matter being claimed in a manner so that claims 32 and 50 are outside of the scope of elected Group I, this same limitation

would then necessarily constitute a “narrowing limitation ha[ving] a material aspect to it” with respect to the nonelected Group II, since none of the cancelled claims of Group II recited a coating limitation. The rule regarding impermissible recapture of cancelled subject matter is set forth in MPEP § 1412.03, which states as follows:

Impermissible recapture occurs in a reissue where the claims in the reissue are of the same scope as, or are broader in scope than, claims deliberately cancelled in an application to obtain a patent. Where such claims also include some narrowing limitation not present in the claims deliberately cancelled in the application, the examiner must determine whether the narrowing limitation has a material aspect to it. If the narrowing limitation has a material aspect to it, then there is no recapture. However, if the narrowing limitation is incidental, mere verbiage, or would be inherent even if not recited (in view of the specification), then the claims should be rejected under 35 U.S.C. § 251” (Emphasis added.)

While it is true that Applicant cancelled the nonelected claims of Groups II and III, the subject matter of those claims was different from the subject matter now being claimed. Rather than claiming “a foamed starch article of manufacture” (Group II) or “a method of manufacturing a starch-based composition/article” (Office Action dated 11/28/95 of ’524 Application), independent claims 32 and 50 claim a “starch-based composition” in combination with a coating. Applicants submit that the coating limitations recited in independent claims 32 and 50, respectively, constitute “a narrowing limitation ha[ving] a material aspect to it” since they are not “incidental” or “mere verbiage”. Nor is a coating limitation “inherent” in the cancelled claims. The same is true for newly added independent claim 54, which claims a “method for coating a starch-based composition” rather than the “method of manufacturing a starch-based composition/article” of cancelled Group III.

In any event, MPEP § 1412.02 requires the examiner to “determine whether the narrowing limitation has a material aspect to it”. However, the Office Action was silent with respect to whether or not the coating limitations found in claims 32 and 50, as originally filed in the above-identified reissue application, have “a material aspect to” them. Thus, the Office Action failed to state grounds

for determining that the originally filed claims in the reissue application constituted impermissible recapture, since such claims clearly recited a “narrowing limitation not present in the claims deliberately cancelled in the [’524] application.” As set forth above, the claims as now amended do, in fact, include a “narrowing limitation [which] has a material aspect to it”, namely the recitation of the coating limitations. The same is true for newly added claims 52-55. For this reason, Applicants are not attempting to impermissibly recapture “subject matter which was cancelled in response to a restriction requirement during the prosecution of the original patent” as stated by the Office Action.

According to MPEP § 1412.01, “[t]he reissue claims must be for the same invention as that disclosed as being the invention in the original patent, as required by 35 U.S.C. § 251.” However, this section further states that “[t]his does *not* mean that the invention claimed in the reissue must have been claimed in the original patent The entire disclosure, not just the claim(s), is considered in determining what the patentee objectively intended as his or her invention.” Finally, this section sets forth the following two-part test for whether the claims are permitted in a reissue application under 35 U.S.C. § 251:

Claims presented in a reissue application are considered to satisfy the requirement of 35 U.S.C. § 251 that the claims be “for the invention disclosed in the original patent” where:

(A) the claims presented in the reissue application are described in the original patent specification and enabled by the original patent specification such that 35 U.S.C. § 112, first paragraph is satisfied; and

(B) nothing in the original patent specification indicates an intent not to claim the subject matter of the claims presented in the reissue application.

The claims presented in this reissue application are described and enabled by the specification, as set forth in the Preliminary Amendment, thus satisfying part (A) of the two-part test. Moreover, sections of the specification cited in support of the new claims does not indicate any

intent not to claim the subject matter of the newly added claims, thus satisfying part (B) of the test. In view of the foregoing, Applicants submit that the claims, as now amended, are properly the subject of a broadening reissue application.

The Office Action rejects claims 32-51 “as being based upon a defective reissue declaration under 35 U.S.C. § 251”. For all of the reasons set forth above, the new reissue declaration submitted on April 21, 2000 is not defective but fully satisfies the requirements of 35 U.S.C. § 251, 37 C.F.R. § 1.175 and MPEP § 1414. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

The Office Action rejected claims 32-34, 38, 40-43 and 45-51 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,576,049 to Haas et al. (“*Haas*”). The Office Action also rejects claims 32-34, 38, 40-43 and 45-51 under 35 U.S.C. § 102(a) as being anticipated by WO 94/13734 (“WO ’734”). Applicants first note that *Haas* has a Section 102(e) filing date of May 31, 1995, while the ’524 Application has an actual filing date of October 21, 1994, as well as multiple claims of priority to earlier filed applications. Thus, *Haas* is not prior art under 35 U.S.C. § 102(e). Of course, Applicants recognize that WO ’734, from which *Haas* was nationalized in the U.S. and which has substantially the same disclosure as *Haas*, was published on June 23, 1994, thus making WO ’734 a citable reference under 35 U.S.C. § 102(a). However, in view of the subject matter relating to coatings set forth in at least some of the applications to which priority was claimed in the ’524 Application, it is likely that Applicants were in possession of the invention now being claimed prior to June 23, 1994. → opps.

In any event, and without acquiescing to the manner in which *Haas* and WO ’734 have been characterized in the Office Action, Applicants note that the claims as now amended are neither anticipated by nor obvious over *Haas* or WO ’734, either alone or in combination with any other prior of record. In particular, neither *Haas* nor WO ’734 teach or suggests using the particular

coatings recited in either of independent claims 32 and 50. For this reason, claims 32 and 50 are patentable over Haas and WO '734, as are the claims which depend therefrom.

Newly added independent claim 54 is likewise patentable over Haas and WO '734 because it claims a method in which a "lamine film coating" is applied to "a shaped and solidified starch-based composition". In contrast, the coatings disclosed in *Haas* and WO '734 are applied as a liquid that includes a solvent (*e.g.* acetone), a film-forming substance (*e.g.* cellulose esters), a plasticizer (*e.g.* fatty acids), and optionally a binder (*e.g.* rosin) (*Haas*, col. 11, line 1 through col. 12, line 23). Thus, a method for coating a starch-based composition in which the coating is applied as a "lamine film coating" appears to distinguish over Haas and WO '734, either alone or in combination with any other prior art of record. For this reason, claim 54 is patentable over Haas and WO '734, as is claim 55 which depends from claim 54.

The Office Action rejects claims 35-37 and 39 under 35 U.S.C. § 103(a) as being unpatentable over either *Haas* or WO '734, each in view of WO 91/12186 ("WO '186"). First, Applicants note that claims 35-37 and 39, being dependent on claim 32, are patentable for at least those reasons for which independent claim 32 is patentable. In addition, dependent claim 39, as now amended, recites the inclusion of fibers having a fiber length "greater than 1.5 mm". In contrast, WO '186, which was nationalized in the U.S. as U.S. Patent No. 5,376,320 to Tiefenbacher et al. ("*Tiefenbacher*"), appears to teach away from the use of fibers having a length greater than 1.5 mm, since longer fibers were found to clog the "vapor escape openings of the baking molds" (*Tiefenbacher*, col. 49, line 56 through col. 50, line 16). Thus, although *Tiefenbacher* discloses fibers having a fiber length between 30 microns and 1500 microns (*i.e.* 1.5 mm), *Tiefenbacher* recommends using fibers of 1 mm mesh to avoid the aforementioned problem (col. 49, lines 56-58; col. 50, lines 15-16). For this additional reason, claim 39 is further patentable over the cited prior art of record.

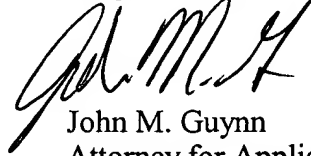
Claim 54 is likewise patentable over *Haas* or WO '734 in view of WO '186 since the laminate film coating is applied to “a shaped and solidified starch-based composition” (*i.e.* a composition that has already been molded). In contrast, WO '186 clearly teaches that the “coatings” disclosed therein are co-molded with the aqueous starch mixtures rather than applied to the solidified composition after molding. Instead, the sheet or film “coating” is placed inside the heated mold *prior* to adding the aqueous starch mixtures (*Tiefenbacher*, col. 16, lines 6-12). For this reason the sheets or films must be “temperature-stable” and resist melting (*Tiefenbacher*, col. 16, lines 13-16 and 34-35). To this end, WO '186 discloses the following “temperature-stable” sheets or films that may be co-molded with the aqueous starch mixture: paper, cardboard, other fibrous materials, plastic, polyethylene-terephthalate, and aluminum (*Tiefenbacher*, col. 16, lines 28-42). In view of the foregoing, WO '186 clearly teaches that the temperature stable coatings disclosed therein are applied to the aqueous starch mixture *prior* to molding the mixture within the heated mold. In contrast, both *Haas* and WO '734 teach the application of a film-forming coating dissolved in a solvent *after* the starch article has been removed from the mold. For this reason, WO '186 is not properly combinable with either *Haas* or WO '734 with respect to the application of a coating to a starch-based composition, since they appear to conflict with each other with respect to how coatings are applied. In any event, even the combination of these references does not teach or suggest the method of applying a laminate film coating to a starch-based composition in the manner recited in claim 54. For this reason, claim 54 is patentable over *Haas* or WO '734 in combination with WO '186.

In conclusion, Applicants believe that the claims as now amended are proper for reissue and are in condition for allowance. In the event that the Examiner finds any remaining impediment to the prompt allowance of this reissue application, which could be clarified by a telephonic interview,

or which is susceptible to being overcome by means of an Examiner's Amendment, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 4th day of October 2000.

Respectfully submitted,



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